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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,903

05/03/2007

Eva Witt

47113-5090

5061

55694 7590 08/07/2009
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EXAMINER

YEE, DEBORAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

08/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,903	Applicant(s) WITT ET AL.	
	Examiner Deborah Yee	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/4/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because the Y-axis in figure 1/6 is labeled as "Area contraction in%" which appears to be inaccurate since specification on page 3 discloses the measurement as "the reduction of area to fracture". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

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3. In specification, the decimal point needs to be represented by a period and not a comma, for e.g. instead of "0,052", it should be --0.052--.
4. In table 1 on page 8, first column is entitled "Exemple Nr" which is misspelled and should be ---Example No.---.
5. In table 2 on page 9, Example E is listed yet its composition or any discussion concerning Example E is not disclosed.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 2 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claim 2 recites a substrate alloy having a lower Al limit of zero yet parent claim 1 recite substrate alloy containing a low Al content. The dependent claim 2 is indefinite because it has a broader Al range than its parent claim.
9. Claim 8 provides for the use of the method for producing material to be used in high temperature application but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 8 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

10. Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 1235682 ("Ralf") cited by Applicant in IDS dated December 4, 2006 alone or in view of US Patent 4,752,599 ("Nakamura").

13. Ralf in claims 1 to 4 discloses an austenitic alloy processed in substantially the same manner as Applicant comprising the steps of coating an austenitic substrate alloy of low Al content with at least one layer of Al or Al alloy at a temperature >600°C.

14. Ralf heats at > 600°C which closely approximates the claimed upper limit heating temperature of 600°C. Also since Applicant has not demonstrated (e.g. by comparative

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test data) the claimed upper limit of 600°C to be somehow critical and productive of any new and unexpected result, then claims would not patentably distinguish over Ralf.

15. Ralf in paragraph [0018] and [0020] disclose austenitic substrate alloy examples that meet the composition recited by one or more the recited claims.

16. Ralf in claim 1 teaches an Al or Al alloy coating, in general, which would broadly include Al alloys containing 0.5 to 25% Si as recited by claim 5. Also it is well known to use Al with high Si content as a coating for a catalytic carrier as evident by Nakamura in column 7, lines 4 to 6; and hence would be obvious to incorporate to Al alloy of Ralf.

17. Ralf in claim 1 teaches using austenitic alloy in high temperature applications such as catalyst carrier foil and therefore would satisfy claim 8.

18. Even though Ralf does not teach the resultant alloy containing 4.5 to 12% Al, such limitation would be expected since composition of austenitic substrate and coating are met and the process of making are closely met and in absence of evidence to the contrary. Moreover, it would be obvious and a matter of routine optimization to adjust the Al content to achieved the desired heat resistant properties which is well within the skill of the artisan and productive of no new and unexpected results.

19. Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,535,034 ("Zaizen") cited by Applicant 's IDS filed December 4, 2006 alone or in view of US Patent 4,752,599 ("Nakamura").

20. Zaizen in claims 1 to 12 in columns 6-8 discloses an austenitic alloy processed in substantially the same manner as Applicant comprising the steps of coating an austenitic substrate alloy of low Al content with at least one layer of Al or Al alloy at a

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temperature $>500^{\circ}\text{C}$ which overlaps and teaches a portion of Applicant's claimed heating temperature range of 100 to 600°C .

21. Zaizen in claims 10 to 12 in column 8 teaches specific austenitic substrate alloy examples that meet the composition recited by one or more the recited claims

22. Zaizen on lines 29 to 31 of column 4 teaches an Al or Al alloy coating, in general, which would broadly include Al alloys containing 0.5 to 25% Si as recited by claim 5.

Also it is well known in the metallurgical art to use Al with high Si content as a coating for a catalytic carrier as evident by Nakamura in column 7, lines 4 to 6; and hence would be obvious to incorporate to Al alloy of Zaizen.

23. Even though Zaizen does not teach the resultant alloy containing 4.5 to 12% Al as recited by the claims, such limitation would be expected since composition of austenitic substrate and coating are met and the process of making are closely met and in absence of evidence to the contrary. Moreover, it would be obvious and a matter of routine optimization to adjust the Al content to achieved the desired heat resistant properties which is well within the skill of the artisan and productive of no new and unexpected results.

24. Zaizen on lines 7 to 21 of column 6 teach using austenitic alloy in high temperature applications which would include catalytic converter and resistive heating and therefore would meet claim 8.

25. Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,752,599 ("Nakamura").

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26. Nakamura in claims 1 to 7 of columns 8-10 and columns 3-4 teach an austenitic alloy processed in substantially the same manner as Applicant comprising the steps of coating an austenitic substrate alloy of low Al content with at least one layer of Al or Al alloy at a temperature $\geq 600^{\circ}\text{C}$ which overlaps and teaches Applicant's claimed upper limit heating temperature range of 600°C .

27. Also similar to present invention, Nakamura on lines 20-to 31 of column 3 teaches austenitic substrate alloy having a composition with constituents whose wt% ranges overlap those recited by claim 2; and such overlap establishes a prima facie case of obviousness because it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art teaches the same utility to us as a catalytic converter component and same high temperature resistant properties.

28. Nakamura on lines 4 to 12 in column 7 teaches using an Al alloy coating containing 10% Si which would meet claims 4 and 5.

29. Even though Nakamura does not teach the resultant alloy containing 4.5 to 12% Al as recited by the claims 1 and 6, such limitation would be expected since composition of austenitic substrate and coating, and the process of making are closely met and in absence of evidence to the contrary. Moreover, it would be obvious and a matter of routine optimization to adjust the Al content to achieved the desired heat resistant properties which is well within the skill of the artisan and productive of no new and unexpected results.

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30. Nakamura on lines 7 to 21 of column 6 teach using austenitic alloy as a catalyst carrier and therefore would meet claim 8.

31. For the foregoing reasons, claims would not patentably distinguish over prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/
Primary Examiner
Art Unit 1793

/DY/